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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,227	11/15/2000	Noriko Kawai	1035-291	8669
23117	7590	12/22/2003	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			NORRIS, JEREMY C	
			ART UNIT	PAPER NUMBER
			2827	

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,227

Applicant(s)

KAWAI ET AL.

Examiner

Jeremy C. Norris

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-7 and 12-18 is/are pending in the application.
- 4a) Of the above claim(s) 7 and 12-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,5 and 18 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1103.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Examiner notes Applicants arguments stating the alleged deficiencies of the Office Action dated 16 July 2003. This Office Action shall correct those alleged deficiencies. However, Examiner notes that the Patent Office no longer provides copies of cited US Patent Documents.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4, 5, and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,298,685 (hereafter Bindra) in view of US 5,408,052 (hereafter Inaba).

Bindra discloses, referring to figure 2, a flexible PWB comprising a flexible insulating substrate (2) first wiring (10), second wiring (11), first and second protecting films (6), a terminal portion (3), wherein the protecting films are thinner than the substrate (see col. 4, lines 1-10 and col. 5, lines 1-5). Bindra does not specifically disclose that the protecting films are attached via an adhesive [claims 4, 18, 19]. However, it would have been obvious, to one having ordinary skill in the art, at the time of invention, to attach the protecting films via an adhesive since it is well known in the art to do so, as evidenced by Inaba (see figure 1). The motivation for doing so would have been to enhance the mechanical attachment of the films, increasing the reliability of the device. Moreover, the modified invention of Bindra discloses that the protecting films have a thickness (2 mils, col. 5, lines 1-5), which is less than half of the thickness of the insulating substrate (5 mils, col. 4, lines 1-10) [claims 5, 20].

Response to Arguments

Applicant's arguments with respect to claims 4, 5, and 18 have been considered but are moot in view of the new ground(s) of rejection. Specifically, Applicants' argument that the drawings of Inaba are not drawn to scale is now moot because the Inaba reference is no longer presented as evidence of relative size, but rather an example of the usage of adhesives to attach polymeric films.

Allowable Subject Matter

The indicated allowability of claim 5 is withdrawn in view of the newly discovered reference. Rejections based on the newly cited reference are shown above.

Claims 6 and 21-23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: Claims 6 and 21 state the limitation "said terminal portion is provided only on the first wiring". This limitation, in conjunction with the other claimed limitations was neither found to be disclosed in, nor suggested by the prior art. Claims 22 and 23 state the limitation, wherein said first and second wirings, which are on opposite sides of said flexible insulating substrate, are not in electrical communication with one another.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 3,437,882	Cayzer,
US 4,713,494	Oikawa et al.,
US 5,014,162	Clark et al.,
US 5,229,550	Bindra et al.,
US 5,263,243	Taneda et al..

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy C. Norris whose telephone number is 703-306-5737. The examiner can normally be reached on Mon.-Th., 9AM - 6:30 PM and alt. Fri. 9AM-5:30PM.

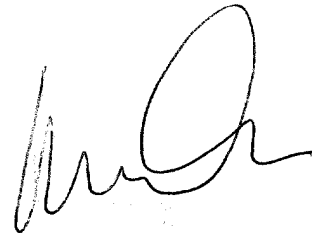
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Talbott can be reached on 703-305-9883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-0725 for regular communications and 703-308-0725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

JCSN
December 13, 2003

A handwritten signature in black ink, appearing to be 'JCSN', is written over a faint, circular official stamp. The signature is fluid and cursive.